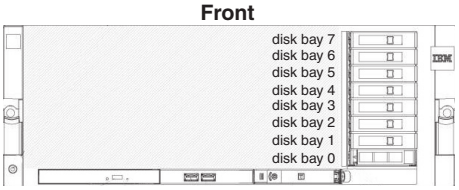
IBM System x3850 X5

IBM® Type-model	Qty x Processor	Core	QPI	L3	Memory	DIMM slots	Memory cards	Ethernet	Mechanical	Slots x bays	Hot-swap pwr supplies	Warranty (yrs.)	Available date
7145-ARU	2 x Xeon™ E7520 1.86GHz	4	4.8GT/s	18MB	2x2GB	8	1	2 x 1Gb	4U[4] rack	7x9	1 x 1975W	3	Mar 2010
7145-1RU	2 x Xeon E7520 1.86GHz	4	4.8GT/s	18MB	4x4GB	16	2	1 x 10Gb	4U rack	7x9	2 x 1975W	3	Mar 2010
7145-2RU	2 x Xeon E7530 1.86GHz	6	5.8GT/s	12MB	4x4GB	16	2	1 x 10Gb	4U rack	7x9	2 x 1975W	3	Mar 2010
7145-3RU	2 x Xeon E7540 2.0GHz	6	6.4GT/s	18MB	4x4GB	16	2	1 x 10Gb	4U rack	7x9	2 x 1975W	3	Mar 2010
7145-4RU	2 x Xeon X7550 2.0GHz	8	6.4GT/s	18MB	4x4GB	16	2	1 x 10Gb	4U rack	7x9	2 x 1975W	3	Mar 2010
7145-5RU	2 x Xeon X7560 2.26GHz	8	6.4GT/s	24MB	4x4GB	16	2	1 x 10Gb	4U rack	7x9	2 x 1975W	3	Mar 2010
7145-E4U	2 x Xeon X7550 2.0GHz	8	6.4GT/s	18MB	8x4GB	16	2	1 x 10Gb	4U rack	7x9	2 x 1975W	3	Mar 2010

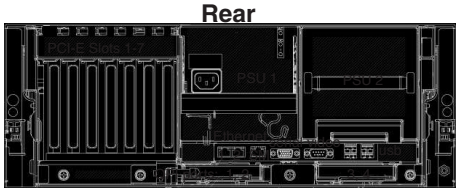
Processors	**Up to Four Next-Generation Intel® Xeon™ EX Processors featuring Quick Path Interconnect(QPI) technology at up to 2.26GHz**[1] / up to **Eight-Core** / **Hyper-Threading and Turbo** (excludes ARU and 1RU)
L3 cache	**12, 18 or 24MB** / on-die / shared
Processor upgrade	**4-way SMP** / up to four Xeon EX Processors (same speed/cache size)
Implementation	Systemboard contains four Socket-LS(1567-pin LGA) sockets, eight memory card slots, seven PCI-E slots, SAS adapter x8 slot, integrated 2 x 1Gb ethernet and graphics
Memory	**4 or 16GB** std / **PC3-10600 1066MHz LP 240-pin Registered ECC DIMMs** / one/two memory cards std / max: eight / 8 DIMM slots per memory card / 64 DIMMS max / DIMMs must be installed in matched pairs / Memory ProteXion™, Chipkill™, Memory Mirroring™ and sparing / dual Intel Scalable Memory Buffers per memory card
SAS/SATA disk controller	ServeRAID BR10i / LSI® 1068 / SAS / 3Gb / RAID 0/1 / PCI-E / dedicated slot / standard / upgradeable / ServeRAID M1015 / LSI SAS2008 / SAS / 6Gb / RAID 0/1/10 (optional 5/50) / ServeRAID M5015 / LSI SAS2108 / SAS / 6Gb / 512MB cache / RAID 0/1/10/5/50 (optional 6/60) / battery optional
SAS connectors	Controller wired to SAS backplane
Disk	Supports up to 4 std / 8 max - 2.5" SFF or 16 - 1.8" SSD disks / SAS / SATA / SSD / mixed use supported
Mechanical	**EIA 19" rack models (4U[4])** x 28" deep / supported in NetBAY™ Racks
Scalability	Scalable to eight-socket, 128 DIMM, 8U[4] form factor, two-node via QPI links
Chipset	**Intel 7500 chipset** / dual IO Hubs provide PCI-E slots, links to BCM5709C and interface to ICH10 Southbridge / ICH10 provides: USB, SATA for DVD and LPC bus to IMM for video and limited Super I/O
Slots	Seven PCI-E slots (see below)
Optical / diskette	Optional / 24x/8x[6] CD-RW/DVD Combo / SATA / none
Ethernet	Broadcom® 5709C 10/100/1000 dual-port ethernet / on systemboard / PCI-E x4 / Wake on LAN® / Alert on LAN™ 2 / TOE / standard / Emulex® 10Gb Virtual Fabric adapter standard on most(except ARU) / consumes PCI-E slot 7
Ports	*Rear:* four QPI, one sys mgmt ethernet, one serial, four USB(2.0), DB-15 graphics and two ethernet / *Front:* two USB (2.0)
Graphics	SVGA / Matrox G200eV integrated in IMM on systemboard / 16MB DDR2-250MHz SDRAM std/max
Systems Management	**Integrated Management Module (IMM)** / VSC452 / WPCT201BA0WG / integrated / provides system and environmental monitoring, event recording, alert capability / TPM 1.2 / ASR / SOL / IPMI 2.0 / SMASH / Remote Presence, blue screen capture via IBM Virtual Media Key standard
Diagnostics	**Light Path Diagnostics**™ (LED lights indicate failing component) and on-board diagnostics
Security	Power-on password / administrator password / unattended boot / selectable boot / unattended start mode
Publications	**Installation Guide and Documentation CD**
Diagnostics	**Light Path Diagnostics Card** / primary indicator on information panel with LEDs associated with failing components / IBM Real Time Diagnostics (operated through IBM Director) available even while server running
Software	**ServerGuide**™ (CD-ROM installation and configuration utilities), IBM Director
Keyboard / mouse	None standard (because rack-based) / USB only
Power supplies	*Std/Max:* one or two/two / rear access / hot-swap / worldwide / voltage-sensing / auto-restart / PFA / 1975W(240V)/redundant / 875W(110V)/non-redundant
Cooling fans	Six variable-speed system fans / includes one fan in each power supply / PFA / fan failure signals LED and IMM / hot-swap (except for lower, center fan-pack on 2 node)

Front



Bay 0 2.5", SL 1", access, hot-swap, open
Bay 1 2.5", SL 1", access, hot-swap, open
Bay 2 2.5", SL 1", access, hot-swap, open
Bay 3 2.5", SL 1", access, hot-swap, open
Bay 4 2.5", SL 1", access, hot-swap, optional
Bay 5 2.5", SL 1", access, hot-swap, optional
Bay 6 2.5", SL 1", access, hot-swap, optional
Bay 7 2.5", SL 1", access, hot-swap, optional
Bay 8 5.25", 0.5", access, for optional optical

Rear



Slot 1 - full-height, full-length, PCI-E x16
Slot 2 - full-height, full-length, PCI-E x8(x4 elec)
Slot 3 - full-height, full-length, PCI-E x8
Slot 4 - full-height, full-length, PCI-E x8
Slot 5 - full-height, half-length, PCI-E x8
Slot 6 - full-height, half-length, PCI-E x8
Slot 7 - full-height, half-length, PCI-E x8
(extended connector for Emulex 10Gb)

- Dimensions: H6.81" x W17.32" x D28.04"
  Dimensions: H173mm x W440mm x D712mm
- Weight: 77.8 to 110lbs; 35.3 to 49.9kg
- Stealth black color
- Tool-free serviceability
- Access power supplies from rear
- Access adapters, processors, memory and systemboard from top
- Setup Program by pressing F1 at startup
- Diagnostics (DSA) by pressing F2 at startup
- Drop Down Light Path Diagnostics (level 2 diagnostic panel) for outside view of potential problem without removing cover
- Information LED panel, diagnostic LED panel, and component LEDs give visual indications of system well-being
- Predictive Failure Analysis® alerts on disks, power supplies, memory, processors, VRMs, and fans with IBM Director

Maximum internal disk capacity:
2TB with four 500GB[2] SFF SATA disks,
4TB with eight 500GB[2] SFF SATA disks

1GB PC3-10600 CL4 ECC DDR3 RDIMM	44T1480
2GB PC3-10600 CL4 ECC DDR3 RDIMM	44T1481
4GB PC3-8500 CL5 ECC DDR3 RDIMM	46C7448
8GB PC3-8500 CL5 ECC DDR3 RDIMM	46C7482
16GB PC3-8500 CL5 ECC DDR3 RDIMM	46C7483
IBM Memory Expansion Card	46M0071
Xeon E7520 1.86GHz/18MB L3 / 4C	49Y4306
Xeon E7530 1.86GHz/12MB L3 / 6C	49Y4305
Xeon E7540 2.0GHz/18MB L3 / 6C	49Y4304
Xeon X7550 2.0GHz/18MB L3 / 8C	49Y4302
Xeon X7560 2.26GHz/24MB L3 / 8C	49Y4300
IBM ServeRAID-M5015 SAS/SATA Controller	46M0829
IBM ServeRAID-M1015 SAS/SATA Controller	46M0831
IBM ServeRAID-M1000 Series Advance Feature Key	46M0832
IBM ServeRAID-M5000 Series Advance Feature Key	46M0930
IBM 500G GB 7200 2.5" SAS Hot-swap HDD	42D0707
IBM 50GB 2.5" SFF SSD	43W7714
IBM UltraSlim Enhanced SATA Multi-burner	46M0902

Other options at **ibm.com**/products/us/

LIMITED WARRANTY[3]

- **3 year parts and labor**
- **International Warranty Service**[3]
- **On site, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time**[7]
- **On site service upgrade options (in eligible locations):**[7]
  - **3 year IOR 24x7, 4 hr avg response** 10N3059
  - **3 year IOR 24x7, 2 hr avg response** 10N3060
  - **4 year IOR 9x5, NBD response** 10N3061
  - **5 year IOR 9x5, NBD response** 10N3065
- **Other ServicePac options at http://www.ibm.com/services/us/its/pdf/wamomxeu.pdf**
- **24x7**[14] **toll-free support for warranty issues during the warranty period**[3]

See footnotes for important warranty information

(x3850 X5A) © IBM Corp. April 2011

*** except for lower, center fan-pack on 2-node